# OPTIONAL ENVIRONMENTAL ASSESSMENT, FINDING OF NO SIGNIFICANT IMPACT, and DECISION RECORD FORM $^{\rm 1}$

#### ENVIRONMENTAL ASSESSMENT

**EA Number**: OR-080-03-21

**BLM Office**: Cascades Resource Area, Salem District Office, 1717 Fabry Road SE, Salem,

Oregon, 97306

**Proposed Action Title**: Quartzville Restoration

**Type of Project**: Instream structure placement, tree planting/site preparation, and riparian conifer release.

<u>Location of Proposed Action</u>: Township 11 South, Range 4 East, Section 9, 19 and 21, and Township 11 South, Range 3 East, Sections 25, 27, 35 and 36, Willamette Meridian; and within the Quartzville Creek Watershed.

Conformance with Applicable Land Use Plan: The proposed action is in conformance with the following documents: RMP (Salem District Record of Decision and Resource Management Plan), (p. 27) dated May 1995; Quartzville Watershed Analysis, 1996, the Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl and Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl, dated April 1994; and the Record of Decision for Amendments to the Survey and Manage, Protection Buffer, and Other Mitigation Measures Standards and Guidelines, dated January, 2001.

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<sup>&</sup>lt;sup>1</sup> Pursuant to BLM Handbook 1790-1, Rel. 1-1547, 10/25/88, page IV-11, it is appropriate to use this optional form when <u>all</u> the following conditions are met: 1/ Only a few elements of the human environment are affected by the proposed action; 2/ Only a few simple and straightforward mitigation measures, if any, are needed to avoid or reduce impacts; 3/ There are no program-specific documentation requirements associated with the action under consideration; 4/ The proposed action does not involve unresolved conflicts concerning alternative uses of available resources and, therefore, alternatives do not need to be considered; 5/ The environmental assessment is not likely to generate wide public interest and is not being distributed for public review and comment; and 6/ The proposed action is located in an area covered by an existing land use plan and conforms with that plan.

#### **Purpose of and Need for Action:**

Quartzville Creek experienced an 80 year+ flood in 1996. During the flood, much of the riparian zone vegetation was stripped and the adjacent road embankment was eroded and exposed. This occurred at a number of locations on BLM land over several miles.

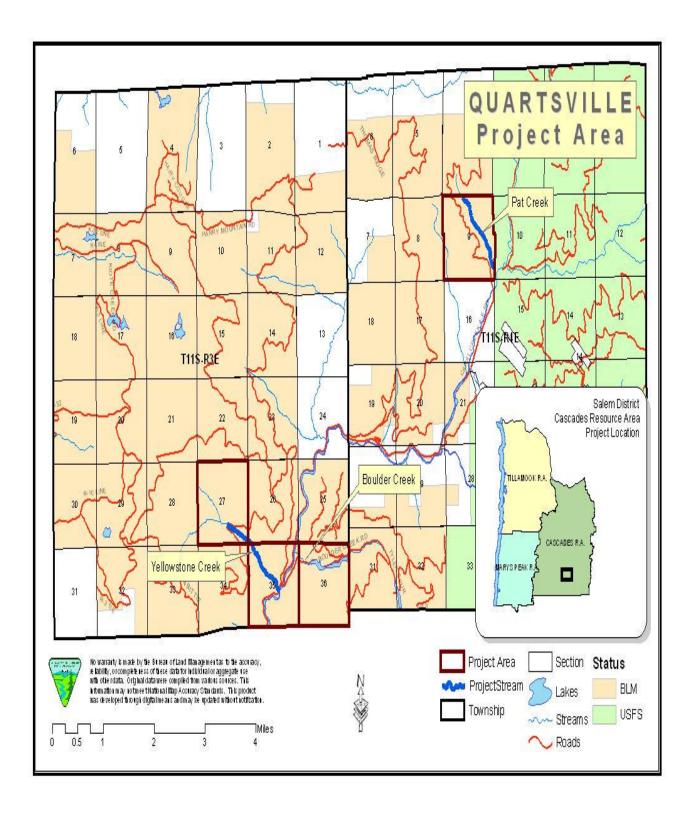
Using flood money, these banks were hardened with riprap using no bio-engineering methods. This project proposes to introduce conifer to discrete areas of exposed embankment in order to provide long term localized shade. This would be considered a pilot project to test methods of introduction into harsh and often high energy sites.

Additionally, during the 1996 flood, several tributaries to Quartzville, including Yellowstone Creek, Pat Creek and Boulder Creek, experienced large scale debris flows which caused extensive damage to adjacent roads and scoured the channels. During the clearing of flood deposits, stockpiles of large woody material and separate "spoil" piles of soil and rock were created. These stockpiles remain today. This project intends to re-introduce the wood from the stockpiles and/or terrace into the channel with the objective of recruiting and storing gravels, providing direct shade to the stream, a nutrient source for primary macro-invertebrates and providing cover for the resident fish populations. The project intends to allow wood to transport via natural routing with storm flow events.

Another purpose for this project is to accelerate the development of missing structural components (e.g, *coarse woody debris (CWD)*) (RMP p. 5). Riparian zones adjacent to Canal Creek and along some short stretches of the Quartzville Access road are shaded by deciduous tree species, primarily red alder. Beneath the deciduous canopy are numerous conifer seedlings (Douglas fir, western red cedar, and hemlock) whose growth is limited by the shade. Removal of a portion of the red alder would allow the conifer to grow unrestricted and provide for a more diverse riparian forest with a mixture of species and age classes.

Finally, following the flood of 1996 there was approximately 1.5 miles of gravel road (Rd. 11-3E-35.1) directly adjacent to Yellowstone Creek which was partially decommissioned. Much of this road lies in the stream's primary shade zone. In the seven years since, there has been scattered and, in some locations, poor re-stocking of alder and shrub species. Initial field review noted no conifer currently occupying the "restored" road surface. This is largely attributed to high retention of the original thick gravel surface with little to no growth media exposed. Most vegetation noted is located in the tooth line of the ripper used to do the work.

### Vicinity Map



#### **Description of the Proposed Action:**

The proposed action consists of several riparian and stream channel improvement projects in various locations in the Quartzville watershed. These projects are as follows:

#### 1. Pat Creek

Reposition the large wood that is currently adjacent to the channel on gravel terraces and hillsides within the active channel. Between 0.5 -0.75 mile of the lower channel would be treated. This would be accomplished with mechanized equipment that is capable of negotiating the channel in a safe manner without causing resource damage.

#### 2. Boulder Creek

This project would re-introduce the wood from the existing stockpile into the channel utilizing an excavator to place the wood in Boulder Creek. No cabling or hard placement of wood would occur (allowed to free float). The excavator would not leave the road right of way.

#### 3. Yellowstone Creek

This project would re-introduce the wood from the existing stockpile into the channel utilizing an excavator to place the wood in Yellowstone Creek. No cabling or hard placement of wood would occur (allowed to free float). The excavator would not leave the road right of way. In addition, the spoil pile from the debris flow would be stabilized with seedlings and native seed materials during the following winter or spring.

#### 4. Yellowstone Road

This project proposes to use mechanized equipment to create conifer establishment sites along this closed road. Equipment would be capable of negotiating the closed road in a safe manner while causing a minimum of disturbance. Re-inoculation of planting sites using adjacent soils in the previous right of way would be done in discrete areas to accelerate re-establishment. Planting of these sites could be accomplished the following winter or spring.

#### 5. Quartzville Access Road

This project would plant conifer to discrete areas of exposed embankment in order to provide long term localized shade. Topsoil catchments in the riprap would be created above the 10-year event watermark using an excavator. Soil from a suitable source would be introduced to the catchments and these would be planted to native materials and irrigated throughout the dry months of the summer until established. If successful, additional sites along the Quartzville Access Road would be planted using similar methods.

#### 6. Canal Creek

The proposal is to selectively cut and remove deciduous trees whose shade is suppressing the growth of adjacent conifer seedlings (i.e., conifer release). Red alder is the only species that would be selected. Some trees may be felled into the adjacent stream where large wood is in low supply. Additional material would be left on the forest floor to meet coarse woody debris targets. The remaining trees would be removed and sold as a forest product. All tree yarding would be from the existing road right-of-way (ROW).

The project would be implemented between July 15 and September 30, 2004.

#### **Design Features:**

- All in-water work would be conducted within the in-water work period (June 1-September 30) recommended by the Oregon Department of Fish and Wildlife.
- All areas with disturbed soil would be seeded with a native grass/forb mix, and planted with conifers and shrubs.
- The proposed action would take place outside of the March 1 July 15 critical nesting season for the spotted owl.
- False brome is present in the area and may be removed from sites prior to work if feasible. Equipment will be washed prior to beginning and upon completion of project.

#### **Endangered Species Act (ESA) Consultation**

**Terrestrial Wildlife**: This project would not affect the northern spotted owl or the bald eagle due to the timing and location of the projects, and noise levels would be at or below ambient levels and of short duration. Since this project would not affect threatened or endangered species or their habitat, Section 7 consultation would not be required.

**Fish:** Section 7 consultation with NOAA Fisheries Service is not required because the Upper Willamette River Evolutionarily Significant Units of chinook salmon and steelhead trout end at Green Peter Dam, downstream of the Quartzville Creek watershed.

#### **Consultation and Public Involvement:**

*Public Involvement:* A scoping letter for the proposed action was posted on the Salem District BLM website and mailed to several interest groups. One public comment was received in response to this scoping which noted concern for the risk to downstream infrastructure (bridges, etc.) as a result of placing large woody materials into channels.

There are seven bridges between the wood placement stream segments and the reservoir. The project has no potential effect on bridges or structures in or below the reservoir. The affected bridges above the reservoir are owned by the BLM, USFS or private companies. All of these bridges are designed to allow for the passage of natural debris carried in the channel during flood

events. This project will not add material to the channel different in size or nature from what already exists and therefore is not likely to increase the risk of damage to any of these structures.

#### **Affected Environment**:

The project area is within the Riparian Reserve and Late Successional Reserve Land Use Allocations, as identified in the RMP. Quartzville Creek has been listed since 1998 for not meeting water quality standards for summer stream temperatures from river mile 3.3 -26.8 (Record ID 7254). The DEQ is currently developing a Total Maximum Daily Load (TMDL) for the South Santiam watershed. Over the long-term, this project should help reduce summer stream temperatures.

#### **Environmental Impacts**:

Tables 1 and 2 describe the affected elements of the human environment required by law, regulation, Executive Order and policy.

Unless otherwise noted, the effects apply to the proposed action. The No Action Alternative would leave the effected environment in its current condition. Over the long term, improvement in water quality, aquatic habitat, and riparian conditions would be foregone under the No Action alternative.

Table 1: Critical Elements of the Human Environment (BLM H-1790-1, Appendix 5)				
Critical Elements Of The Environment	Status: (i.e., Not Present , Not Affected, or Affected)	Does this project contribute to Cumulative Effects? Yes, No, NA	Remarks or Environmental Effects (if not affected – why) if Affected (summary of environmental effects)	
Air Quality	Not Affected	NA	Prescribed burning is not part of the proposal.	
Areas of Critical	Not Present			
Environmental Concern	Not Flesent	NA		

Table 1: Critical Elements of the Human Environment (BLM H-1790-1, Appendix 5)				
Critical Elements Of The Environment	Status: (i.e., Not Present , Not Affected, or Affected)	Does this project contribute to Cumulative Effects? Yes, No, NA	Remarks or Environmental Effects (if not affected – why) if Affected (summary of environmental effects)	
Cultural, Historic, Paleontological	Not Affected	NA	There are no known cultural sites located within the project areas. The project areas are either within the existing streambed, adjacent 1996 flood (riparian) zones and old road beds and rights of way. These areas have already received extensive ground disturbance from both natural and human activities.  The project complies with the August 1998 Protocol for Managing Cultural Resources on Lands Administered by the BLM in Oregon and fits the definition of exempt undertaking under Appendix E, categories Wildlife 4 (Fisheries habitat improvement confined to stream channel) and Other 8 (Pre-commercial thinning and reforestation planting except involving substantial surface disturbance) and Other 10 (Resource mgmt. actions which do not create new surface disturbance  If during the implementation of the project, cultural resources are found, the operations would be immediately halted and the Field Manager notified. Operations would be resumed only with the Field Manager's approval after appropriate mitigation measures were designed and implemented based on recommendations from the District Archaeologist.	
Prime or Unique Farm Lands	Not Present	NA		
Flood Plains	Affected	No	The project would occur within the active channel and floodplain of Boulder, Pat and Yellowstone Creeks (see Purpose of and Need for Action, p. 1). Overall effect would be to increase deposition on the floodplain, floodplain "connectivity" with the channel and the retention of organic materials on the floodplain. Some scour and re-deposition of floodplain substrates would also occur.	
Native American Religious Concerns	Not Affected	NA		
Threatened or Endangered Plant Species or Habitat	Not Present	NA	Although suitable habitat does exist within the project area, that habitat is not optimum. This project should elevate the existing habitat and increase the likelihood of S&M and SSS recruitment.	
Threatened or Endangered Wildlife Species or Habitat	Not Affected	NA	This project is a disturbance only project that will not result in the modification of any threatened or endangered species habitat. This project would not affect the northern spotted owl or the bald eagle due to the timing and location of the projects, and noise levels would be at or below ambient levels and of short duration.	

Table 1: Critical Elements	Table 1: Critical Elements of the Human Environment (BLM H-1790-1, Appendix 5)			
Critical Elements Of The Environment	Status: (i.e., Not Present , Not Affected, or Affected)	Does this project contribute to Cumulative Effects? Yes, No, NA	Remarks or Environmental Effects (if not affected – why) if Affected (summary of environmental effects)	
Threatened or Endangered Fish Species or Habitat	Not Affected	NA	Section 7 consultation with NOAA Fisheries Service is not required because the Upper Willamette River Evolutionarily Significant Units of chinook salmon and steelhead trout end at Green Peter Dam, downstream of the Quartzville Creek watershed.	
Hazardous or Solid Wastes	Not Present	NA		
Water Quality (Surface and Ground) (including stream temperature, sedimentation)	Affected	No	A short-term, localized increase in turbidity and sedimentation would occur in Pat, Boulder and Yellowstone Creeks during project implementation. Most of the sediment is expected to ultimately settle in the reservoir downstream. Summer stream temperature should be incrementally reduced by the action.	
Wetlands/Riparian Zones (including structural diversity)	Affected	No	The project would occur within the riparian area of all the affected channels (see Purpose of and Need for Action, p. 1). Project should increase diversity and vigor of forest species in the affected riparian zones.	
Wild and Scenic Rivers	Not Affected	NA	Given the type and scope of the activities proposed, no impacts to Quartzville Creek's outstandingly remarkable values or its free flowing characteristics would be expected.	
Wilderness	Not Present	NA		
Invasive, Nonnative Species	Affected	NA	Invasive species will be assessed prior to project work in June. False brome is present in the area and may be removed from sites prior to work if feasible. Equipment will be washed prior to beginning and upon completion of project.	
Environmental Justice	Not Affected	NA	The proposed action is not anticipated to have disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.	
Adverse Impacts on the National Energy Policy	Not Affected	NA	This is not an energy project.	

Table 2: Other Elements of the Hu	man Environment		
	Status: (i.e., Not Present , Not	Does this project	Remarks or Environmental Effects
Other Elements Of The	Affected, or list	contribute to	(if not affected – why)
Environment	species or	Cumulative	if Affected (summary of
	elements affected		environmental effects)
Coastal and	by this project)	Yes, No, NA	
Coastal zone Fire Hazard/Risk	Not Present Not Affected	NA NA	
Fish Species with Bureau Status and Essential Fish Habitat	Affected	No	No fish species with Bureau Status are present within the project area. The project would have no adverse effects on Essential Fish Habitat as designated by the Magnuson-Stevens Act. The project is expected to improve cover, gravel and substrate retention, water quality and the food base for aquatic species.
Late successional and old growth		NA	Project will not result in late
species habitat and ecosystems	Not affected		successional habitat modification.
Mining claims, mineral leases, etc.	Not Present	NA	
Recreation	Affected	No	There may be a short restriction of recreational use of the project areas while the work is being completed. No other impacts to recreational use are expected.
Rural Interface Areas	Not Present	NA	
Soils (Site Productivity)	Affected	No	No activity is proposed on natural soil surfaces. All project soils have been previously disturbed and this action is expected to speed recovery of soil productivity at these sites.
Special Areas (Within or Adjacent)	Not Present	NA	
Special Status and SEIS Special Attention Plant Species/Habitat (including Survey and Manage) (RMP pages 28-33, Appendix B- 1:1- B-2:4)	Not Present	NA	No known Special Status and SEIS Special Attention Plant Species exist within or near the project area.
Special Status and SEIS Special Attention Wildlife Species/Habitat (including Survey and Manage) (RMP pages 28-33, Appendix B- 1:1- B-2:4)	Not Affected	NA	No known Special Status and SEIS Special Attention Wildlife Species are potentially affected by this project.
Visual Resources	Affected	No	A forested setting would still be maintained and changes to the landscape character are expected to be low and would comply with Class II, III and IV guidelines.

Table 2: O	ther Elements of the Hu	man Environment		
Other Elements Of The Environment		Status: (i.e., Not Present, Not Affected, or list species or elements affected by this project)	Does this project contribute to Cumulative Effects? Yes, No, NA	Remarks or Environmental Effects (if not affected – why) if Affected (summary of environmental effects)
	Aquatic Conservation Strategy Objectives	Affected	No	See Tables 3 and 4 – ACS Review Summary  Helps restore most ACS objectives and does not retard or prevent the attainment of any ACS Objective.
Water Resources	Other water components (DEQ 303d listed stream, DEQ 319 assessment, water quantity)	Affected	No	This project is unlikely to alter the current 303(d) listing. Project implementation will help reduce summer stream temperatures.
	Downstream Beneficial Uses (Salem FEIS pp. 3-9)	Affected: Fisheries	No	Beneficial Uses Present (Downstream from Project): Recreational and professional mining. Irrigation and livestock watering. Cold water fisheries and municipal water supply. All are too far downstream and below the reservoir to be affected except mining and fisheries. Project is not expected to have any effect on mining. Project should benefit cold water fish by improving habitat and reducing stream temperature.
	Key Watershed	Not Affected	NA	The Quartzville Watershed is not a Key Watershed as designated by the Northwest Forest Plan.

#### **Aquatic Conservation Strategy Objectives**

## Table 3: Documentation of the Quartzville Restoration Projects' Consistency with the Four Components of the Aquatic Conservation Strategy

Component 1 - Riparian Reserves: Riparian habitat would be enhanced with this project.

Component 2 - Key Watershed: The projects are located within the Quartzville Creek watershed, which is not a designated key watershed.

Component 3 - Watershed Analysis: The Quartzville Creek Watershed Analysis was completed, and indicated that adding large wood to stream channels and establishing conifer in hardwood dominated stands would be desirable, while nothing in the analysis precludes restoration of the type proposed.

Component 4 - Watershed Restoration: Adding large wood to channels and establishing conifer and other local plant species in the riparian reserve, thus restoring these sites to a more natural condition, ties in with restoration objectives for this watershed.

## Table 4: Documentation of the Quartzville Restoration Projects' Consistency with the Nine Aquatic Conservation Strategy Objectives

ACS Objective 1. Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations and communities are uniquely adapted.

Alternative 1: The current distribution, diversity and complexity of watershed and landscape-scale features would be maintained overall and, at the project sites, enhanced. Would help restore these features at project locations and therefore promotes the attainment of ACS Objective 1.

ACS Objective 2. Maintain and restore spatial and temporal connectivity within and between watersheds. Lateral, longitudinal, and drainage network connections include floodplains, wetlands, upslope areas, headwater tributaries, and intact refugia. The network connections must provide chemically and physically unobstructed routes to areas critical for fulfilling life history requirements of aquatic and riparian dependent species.

Alternative 1: The current spatial and temporal connectivity within and between watersheds would be maintained overall and, at the project sites, enhanced. Would help restore these features at project locations and therefore promotes the attainment of ACS Objective 2.

ACS Objective 3. Maintain and restore the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations.

Alternative 1: The physical integrity of the aquatic system would be enhanced at project sites by the addition of large wood. *Helps restore and does not retard or prevent the attainment of ACS Objective 3*.

Table 4: Documentation of the Quartzville Restoration Projects' Consistency with the Nine Aquatic Conservation Strategy Objectives

ACS Objective 4. Maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems. Water quality must remain within the range that maintains the biological, physical, and chemical integrity of the system and benefits survival, growth, reproduction, and migration of individuals composing aquatic and riparian communities.

Alternative 1: Though there is a high probability of sediment entering streams during wood placement, these effects would be of limited duration and intensity and would impose little risk to aquatic species. Planting these project areas may improve summer stream temperatures adjacent to the project area in the long term. *May restore and does not retard or prevent the attainment of ACS Objective 4*.

ACS Objective 5. Maintain and restore the sediment regime under which aquatic ecosystems evolved. Elements of the sediment regime include the timing, volume, rate, and character of sediment input, storage, and transport.

Alternative 1: Restoring these sites would help return the sediment regime to a more natural state by increase channel resistance to levels normal in these channels. *Helps restore and does not prevent the attainment of ACS Objective 5*.

ACS Objective 6. Maintain and restore in-stream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing. The timing, magnitude, duration, and spatial distribution of peak, high, and low flows must be protected.

Alternative 1. By increase channel resistance, this action would help restore in-stream flows and patterns of sediment and wood routing to a natural distribution. *Helps restore and does not prevent the attainment of ACS Objective 6*.

ACS Objective 7. Maintain and restore the timing, variability, and duration of floodplain inundation and water table elevation in meadows and wetlands.

Alternative 1: By increase channel resistance, this action would help restore floodplain inundation and water tables. *Helps restore does not retard or prevent the attainment of ACS Objective 7.* 

ACS Objective 8. Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion, and channel migration and to supply amounts and distributions of coarse woody debris sufficient to sustain physical complexity and stability.

Alternative 1: Site restoration activities should improve the current condition of plant communities within the affected riparian area. *Helps restore and does not retard or prevent the attainment of ACS Objective* 8.

ACS Objective 9. Maintain and restore habitat to support well-distributed populations of native plant, invertebrate and vertebrate riparian-dependent species.

Alternative 1: Site restoration activities should improve habitat for stream and riparian-dependent species. *Helps restore and does not retard or prevent the attainment of ACS Objective 9.* 

### Interdisciplinary Team:

Resource	Name	Initial	Date
Cultural Resources	Frances Philipek	FUP	1/9/04
Hydrology/ Water Quality and Soils	Patrick Hawe	PH	1/21/04
Botany TES and Special Attention (including Survey and Manage) Plant Species	Terry Fennell	TGF	1/12/04
Wildlife TES Species\Special Attention (including Survey and Manage) Animal Species	Jim England	158	1/09/04
Fisheries	Dave Roberts	DAR	1/12/0
Ecology	Barbara Raible	BR	1/12/04
Wild and Scenic Rivers/ Wilderness/Recreation Sites/ Visual Resources Management / Rural Interface	Laura Graves	cos for LG	1/12/04
NEPA Coordination	Carolyn Sands	C05	1/2/09

EA Prepared By: Pa	atrick Hawe
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Date: 01/09/2004

EA Reviewed By

NEPA / Plans

#### FINDING OF NO SIGNIFICANT IMPACT and DECISION RECORD

Based upon my review of this EA (Environmental Assessment Number OR-080-03-21), I have determined that the proposed action is not a major federal action and will not significantly affect the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects meet the definition of significance in context or intensity as defined in 40 CFR 1508.27. Therefore, an environmental impact statement is not needed. I have also determined that the proposed action is in conformance with the approved land use plan. It is my decision to implement the proposed action, as described in the EA.

Right to Appeal: This decision may be appealed to the Interior Board of Land Appeals (Board), Office of the Secretary, in accordance with the regulations contained in 43 Code of Federal Regulations (CFR), Part 4 and the Form 1842-1 (See Appendix 2). If an appeal is taken, your notice of appeal must be filed in this office within 30 days from receipt of this decision. The appellant has the burden of showing that the decision appealed from is in error.

If you wish to file a petition pursuant to regulation 43 CFR 4.21 (58 FR 4939, January 19, 1993) or 43 CFR 2804.1 for a stay of the effectiveness of this decision during the time that your appeal is being reviewed by the Board, the petition for a stay must accompany your notice of appeal. A petition for a stay is required to show sufficient justification based on the standards listed below. Copies of the notice of appeal and petition for a stay must also be submitted to each party named in this decision and to the Board and to the appropriate Office of the Solicitor (see 43 CFR 4.413) at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

Standards for Obtaining a Stay: Except as otherwise provided by law or other pertinent regulation, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards:

- (1) The relative harm to the parties if the stay is granted or denied.
- (2) The likelihood of the appellant's success on the merits.
- (3) The likelihood of immediate and irreparable harm if the stay is not granted, and
- (4) Whether the public interest favors granting the stay.

Implementation Date: Implementation of this decision may begin 30 calendar days after the public notice of the Decision Record appears in the Albany Democrat Herald.

Contact Person: For additional information concerning this decision or the appeal process, contact Patrick Hawe at (503) 315-5972 or Carolyn Sands at (503) 315-5973, Cascades Resource Area, Salem District, 1717 Fabry Road, Salem, Oregon 97306.

Cascades Resource Area

Authorized Official: Cindy Enstrom Field Manager

Date: 1/21/04

### **APPENDIX 2: Appeals Form 1842-1**

Add once the EA is converted to a PDF file.